



SAFE System Network Interface





What you will be learning

Physical connections. (Take note of the MAC address)

Launch the MS-200
Discovery tool, locate the Mac
Address and take note of the
IP Address

Use your favorite Browser and type in the IP address of the MS-200

Using Setup Menu, enter the location information. This will be pulled for the rest of the programming

Set the Network information, re-login to the new IP address

Program the SMTP server under the Email menu.
There are easy programming options here

Program the Devices in the Devices menu, like the MS-1000, and other FTP Servers

Program Alerts that use the Servers, and Devices we programmed earlier

Program the Audio, and most importantly the Mic activity log

Test the system

MS-200 Network Connections

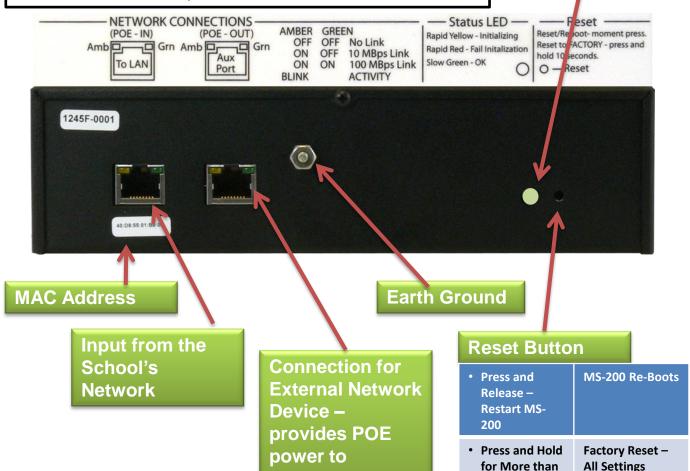


Status Mode

Indicator

Status Mode Indicator:

- Rapid Yellow Unit is initializing
- Rapid Red Initialization failed
- Slow Red Initialized, some critical devices were not detected
- Slow Yellow Initialized, some non-critical devices were not detected
- · Slow Green Initialized, all are devices connected



external Device

Note: Because of the POE pass through feature, it is important to insure that the network is connected to the correct jack

Reset switch is recessed inside the unit, use small pen tip or paper clip to press reset switch.

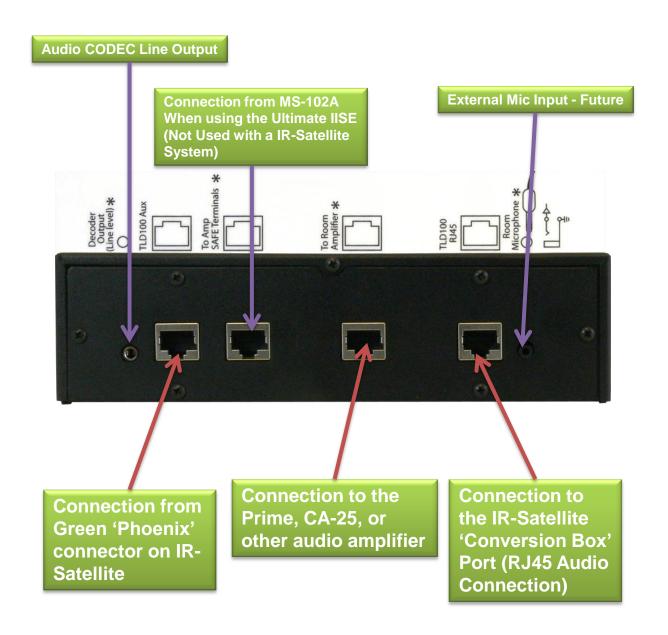
defaulted

10 Seconds -

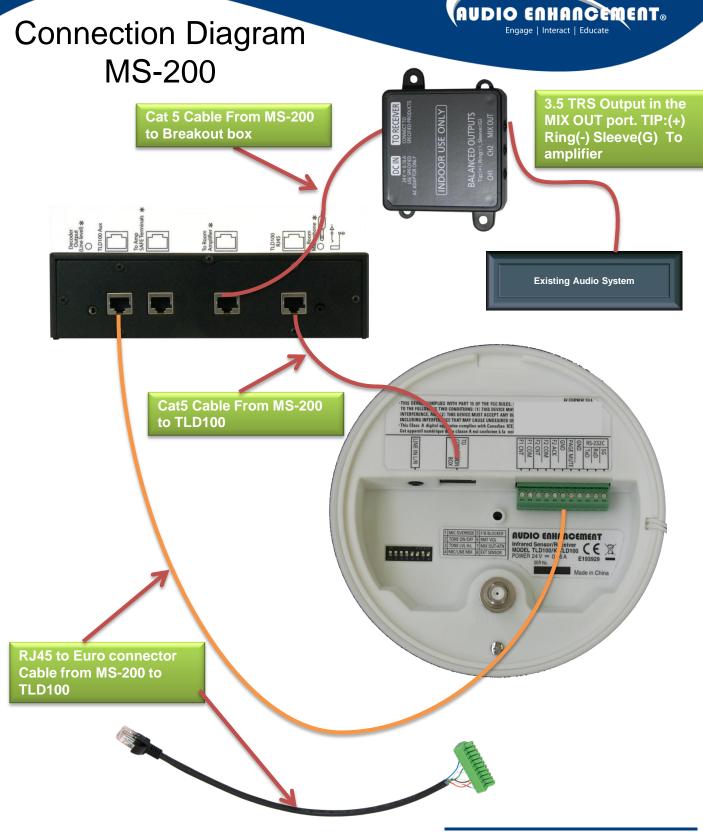
then release



MS-200 Satellite & Audio Connections

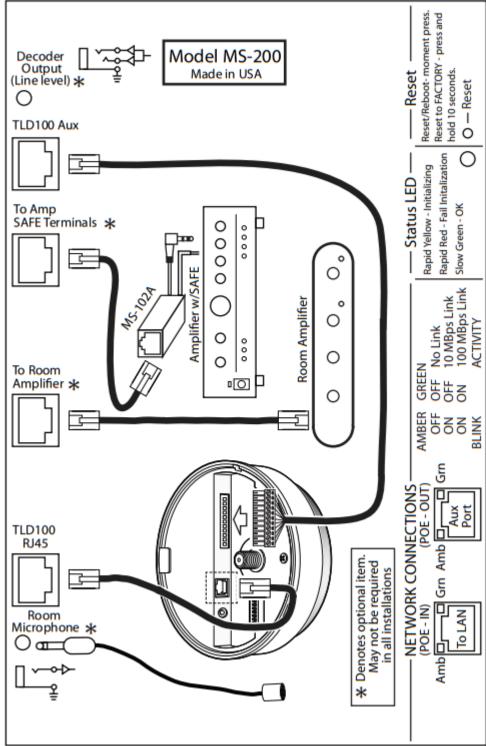






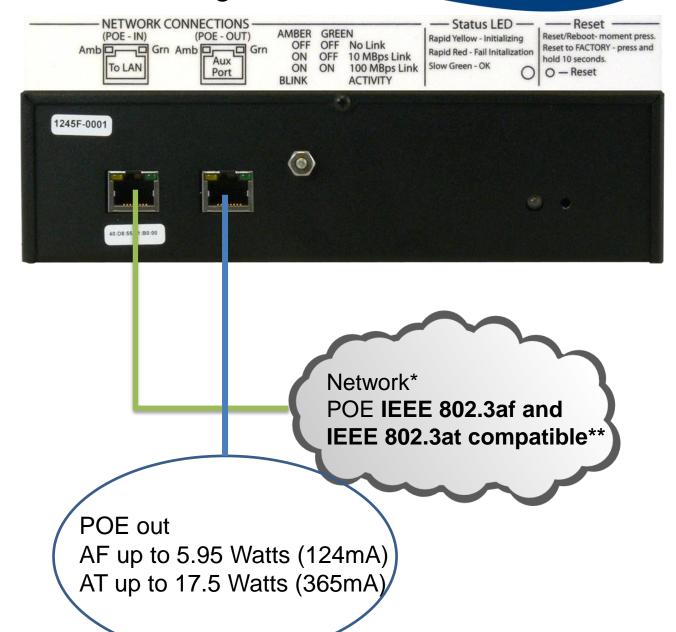


Connection Diagram





Connection Diagram



*Note: Because of the POE pass through feature, it is important to insure that the network is connected to the correct jack

** Settable via Internal hardware switch
The MS-200 consumes 7 Watts of POE power (124mA)

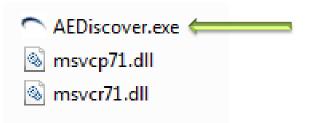
For AF, the MS-200 uses 148mA that is 7 Watts. You have 5.95 Watts left (124mA.) For AT the MS-200 uses 148mA. You have 17.5 Watts left (365mA.)



Discovering the MS-200



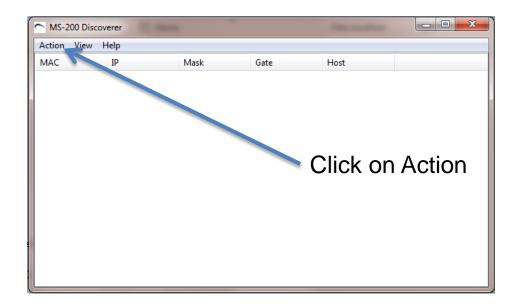
- The MS-200 has software that allows you to discover it on the network
- This allows you to find out what IP address it has been assigned by the DHCP server
 - Locate the MS-200 discovery tool by downloading from: http://www.audioenhancement.com/wp-content/uploads/InstallationFiles/MS200-discovery-tool.zip
 - Open the Folder, and Run the AEDiscover.exe application







Using the MS-200 Discover Software



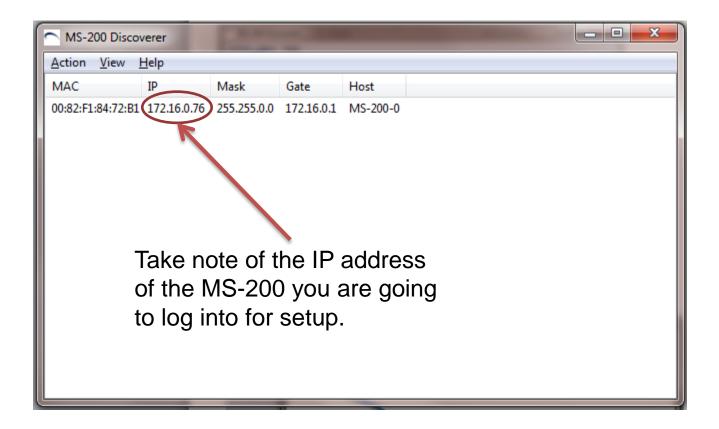


The Discover software will scan the network and find any available MS-200 Network Interfaces



Using the MS-200 Discover Software





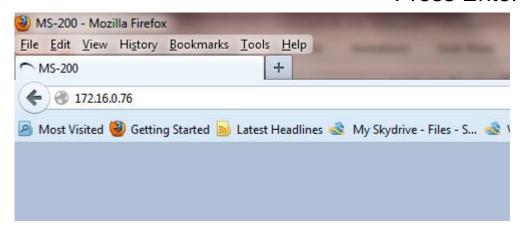


Browser Access to the MS-200



Enter the IP address into your internet browser

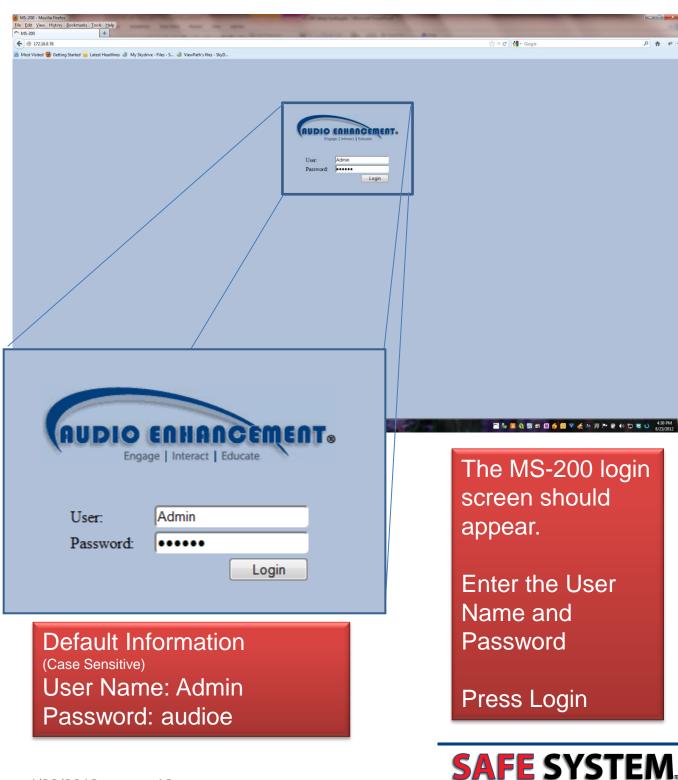
Press Enter





Browser Access to the MS-200

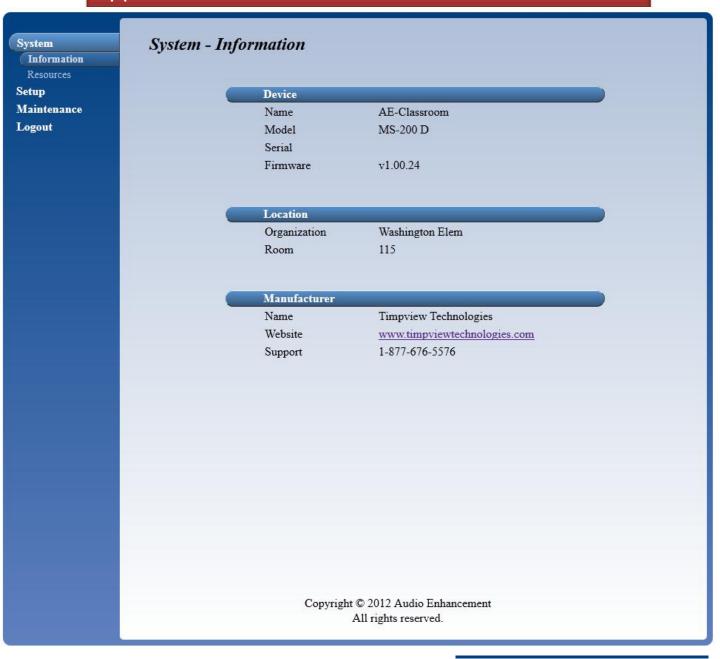




Browser Access to the MS-200



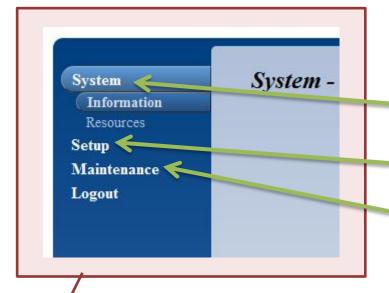
The initial System Information screen should appear







MS-200 Interface



The MS-200 Interface has 3 main sections:

- System
- Setup
- Maintenance

OUDIO ENHANCEMENT. System - Information AE-Classroom Name MS-200 D Model Serial v1.00.24 Firmware Washington Elem Organization 115 Timpview Technologies Website www.timpviewtechnologies.com 1-877-676-5576 Support Copyright © 2012 Audio Enhancement All rights reserved.





Security Alert For Education

Setup - Location



The Setup – Location screen allows you to enter or change the assigned location of this particular MS-200.

It also allows you to select the Time Zone, and turn on/off the Daylight Savings Time Adjustment

Setup - Location Location Organization Name Washington Elem Building Room 115 Class. Postal Address Time Zone Daylight Savings (UTC-07) Mountain Other Information After making a change, press the Submit button to send the changes to Submit the MS-200



Setup – Network



The Setup – Network screen allows you to manage the network settings of this MS-200.

When making changes to the network screen – the MS-200 will automatically reboot after the Submit button has been pressed – this can take up to two minutes and requires you to re-log into the MS-200 via your browser.

Setup - Network Network Host Name George Classroom Type Static Select DHCP or Static according to your DHCP internal network policies Static IP Address 172.16.8.200 If you are using Static IP, Subnet Mask 255,255,0.0 then the remaining network information will Gateway Address 172.16.5.1 need to be filled in 172.16.5.5 DNS Primary manually. After making a DNS Secondary 172.16.5.2 (Optional) change, press the Submit button to send Time Server 172.16.5.5 (Optional) the changes to the MS-200 The Time Server is optional. For the mic usage assessment feature, the system needs a time server. The system will try to find one automatically by finding a list of public time Tools ≡ Submit servers. However, if the system is behind a firewall that blocks port 123, an internal time server needs to be put here. **SAFE** SYSTEM



Setup – Email

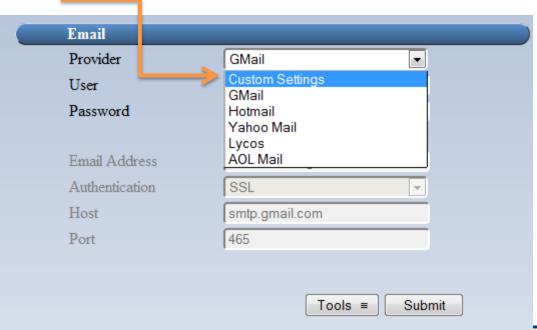


The Email Screen allows you to setup the **outbound** e-mail account settings, or SMTP. This is the email server and account that the MS-200 will use to send event messages.

(Event messages and the recipients of those messages will be specified on the Alerts screen)

The MS-200 has been configured to handle most email server requirements including SSL Authentication required by public email services such as Gmail.

1st Step is to select the appropriate email service that you will be subscribing to. For Microsoft Exchange or other in house email clients, select 'Custom Settings'.



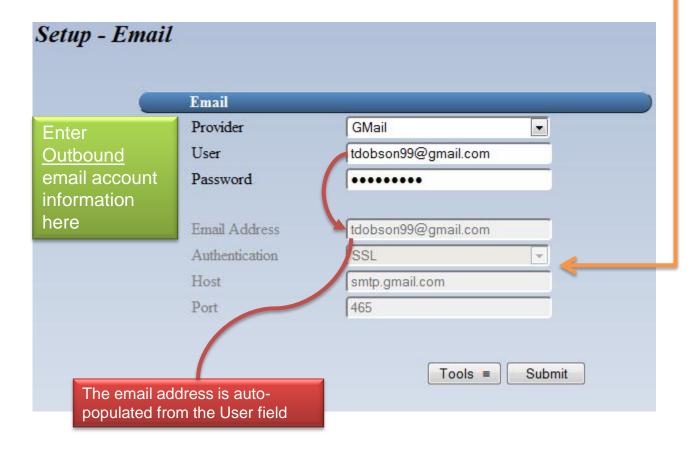




Setup - Email



Gmail and the other common email clients will be auto-populated with their commonly used settings. If for some reason these are not correct simply select 'Custom Settings' and enter the correct settings.





Setup – Devices MS-1000





Lo

The Setup – Devices screen is where you program the MS-200 to send trigger information when an event occurs. The most common Device specified is the MS-1000.

Modify Device Name Tom's Table MS1000 Type MS-1000 Address / Port 172.16.0.100:21 The MS-200 will automatically scan the network for available Save Del MS-1000 systems. Use the Address/Port pull down menu to select the correct MS-1000 for this MS-200 to send the alert signal. Existing Devices Tom's Table MS1000 [Add New] Once a device has To modify a device, select the device from this list, and then make the been defined and necessary changes in the Modify saved, it will be listed Device section of this page. Once in the 'Existing changes are made, be sure to hit the Devices' section of

Save button.

Tools ≡

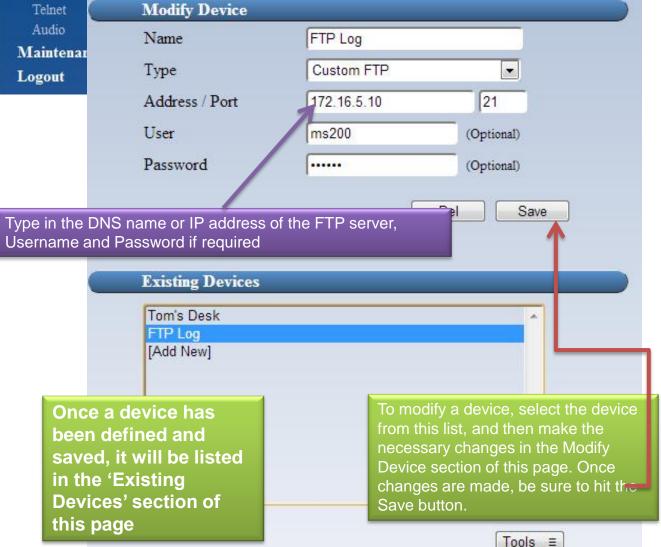
this page

Setup – Devices FTP





The Setup – Devices screen is where you program the MS-200 to send trigger information when an event occurs. The FTP server is for dumping the Mic Activity Log



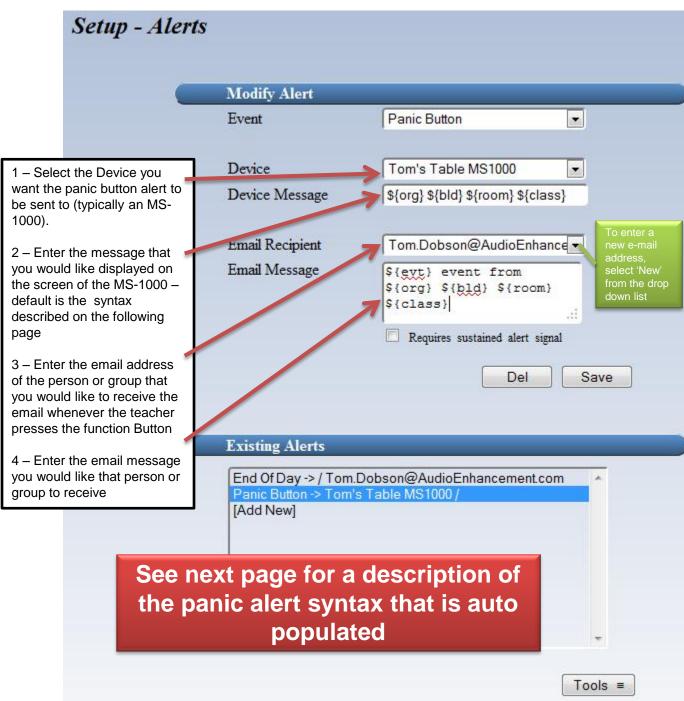
AFE SYSTEM



Panic Button Alert

To Setup a Panic Button Alert

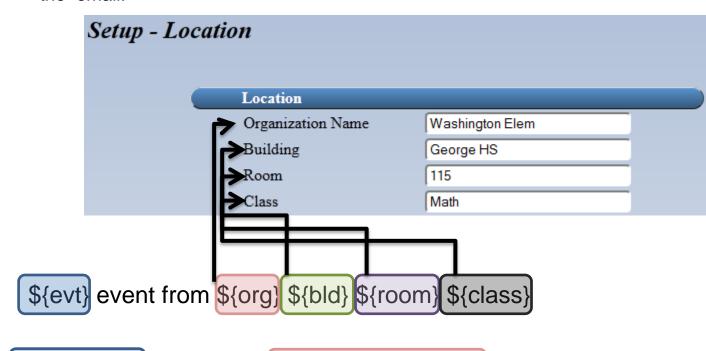
The Setup – Alerts screen is used to setup the different events that the MS-200 is going to report on. There is currently only one so there the drop down is grayed out. You will be using the Devices you setup Previously





Alert Syntax

The syntax, auto-populated when you create an alert, causes parameters entered in the MS-200 Setup – Location screen to be included in the body of the email:

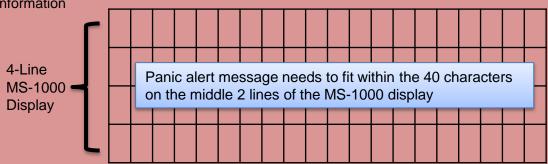


Panic Button event from Washington Elem

George HS Room 115 Math

MS-1000 Character Limitations

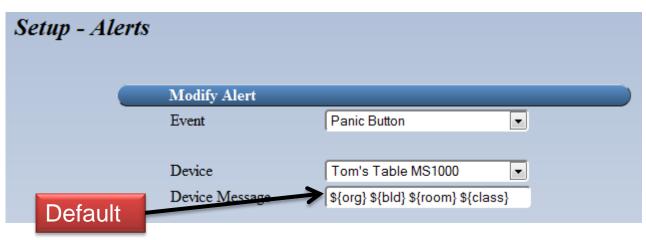
When determining the information to be transmitted to the MS-1000 during a panic alert, it is important to remember that the MS-1000 has a character limitation of 40 characters for display of the panic alert information







Alert Syntax



Due to the character limit on the MS-1000 Display, you may want to consider one of the following: 1 - Create your own custom message and enter it into the Device Message window 2 - Delete the \${ORG} portion of the data string, which will eliminate the Organization Name from being displayed on the MS-1000 3 - Change the order of the information being displayed Device Tom's Table MS1000 Device Message George HS_115_Math Device Tom's Table MS1000 • Device Message \${bld} \${room} \${class} Device Tom's Table MS1000 • Device Message \${room} \${class} \${bld}



Usage Tracking System



Example of Usage Tracking System Email Data

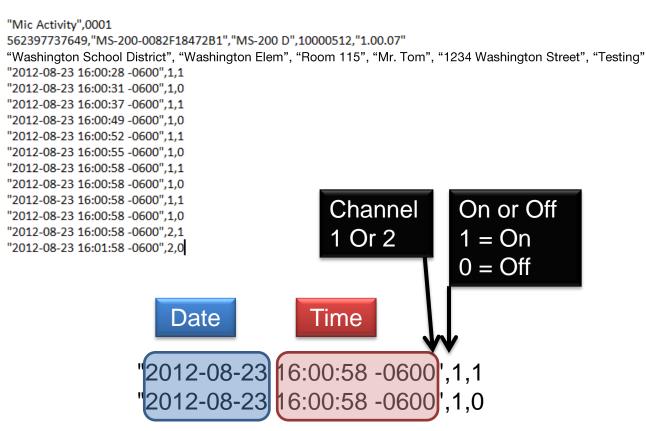
----Original Message-----

From: MS-200 [mailto:tdobson99@gmail.com] Sent: Thursday, August 23, 2012 4:01 PM

To: Tom Dobson

Subject: End Of Day Alert

End Of Day event from Gwinnett County Public Schools Gwinnett High School Room 15 Mr. Hayward



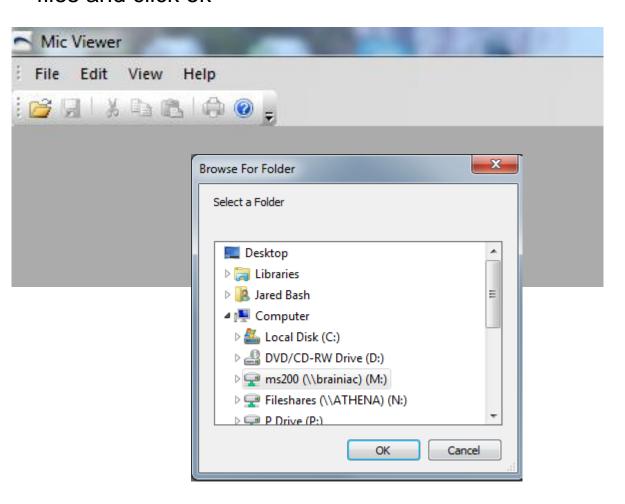




Mic Viewer Software

Open the Mic Viewer Software and click on File then open Folder.

Browse to your Stored location of the Mic Activity files and click ok







Mic Viewer Software

Click on Edit then Preferences

Here you can change how you view the reports and set up school days

| Mic Viewer | | W-3-7-10-17-7 |
|---------------------|-------------------|---------------------|
| File Edit View Help | | |
| | 0 5 | |
| Preferences | | 23 |
| Show | Microphone Titles | School Day |
| District | Microphone 0: | Start Time End Time |
| School | Teacher | 7:00 AM 11:00 AM |
| Street Address | Microphone 1: | Start Time End Time |
| | Student | 12:00 PM 3:00 PM |
| Room Number | | Start Time End Time |
| | | 6:00 PM 6:00 PM |
| | | |
| | | OK Cancel |
| | | on conten |





Mic Viewer Software



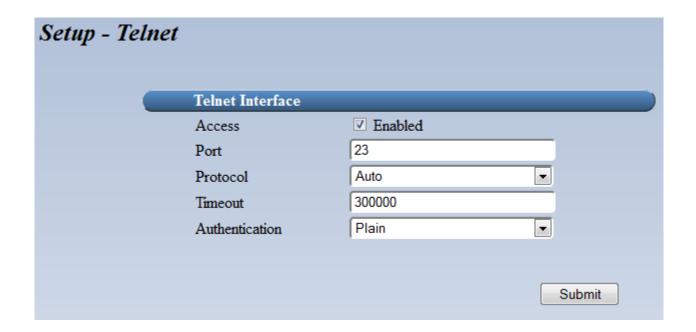




Setup – Telnet



This screen enables or disables communication with the MS-200 and IR-Satellite via a Telnet interface.







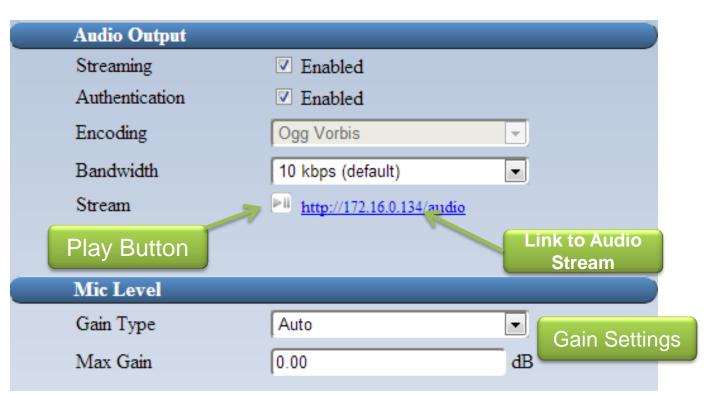
Setup - Audio



The Setup – Audio screen allows you to select the audio encoding format, and setup the Mic Activity Logs

Currently, only the Ogg Vorbis encoder is active in the system – this is a universal encoding format that is audible in most standard internet browsers.

Click on the 'Play' Button, or Click on the link to listen to the encoded audio coming from the MS-200







Setup - Audio



The Setup – Audio screen allows you to select the audio encoding format, and setup the Mic Activity Logs

There will be 2 options to send the Mic Activity Log but they will only show up if you have created the devices.

Email and FTP

You can choose which one fits your install. I suggest FTP. Set the time and frequency to send the logs







System - Information



The System - Information screen provides basic information about the device and where it has been assigned.

| | Device | |
|--|--------------------------------|------------------------|
| | Name | AE-Classroom |
| | Model | MS-200 D |
| | Serial Serial | |
| | Firmware | v1.00.24 |
| Building and Room Ssignments | Location Organization | Washington Elem |
| ssignments These are configured the Setup – Location | Location Organization Room | Washington Elem 115 |
| ssignments These are configured the Setup – Location | Organization | |
| ssignments hese are configured the Setup – Location | Organization Room | |
| suilding and Room assignments These are configured the Setup – Location creen) | Organization Room Manufacturer | 115 |

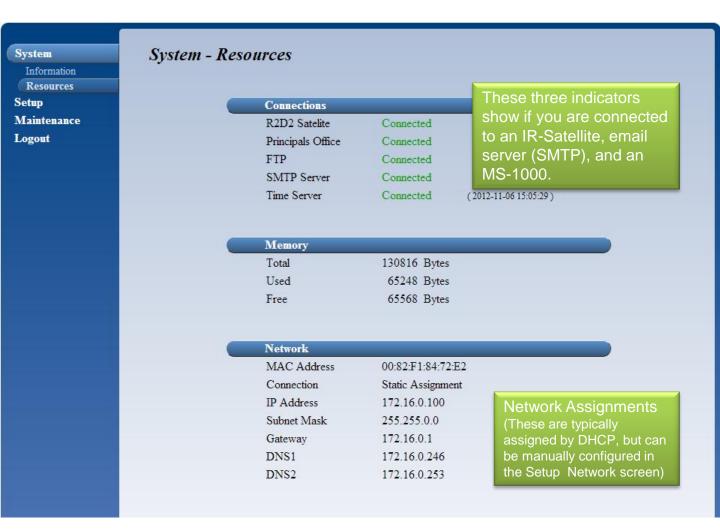


System – Resources





System resources provides an overall view of the network assignments and resources that the MS-200 is utilizing.







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Setup – Admin

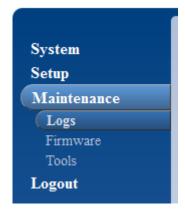


The Setup – Admin screen allows you to manage the administrative functions of this MS-200

Lo Setup - Admin Login Information User Name Admin Current Password no change New Password no change Re-enter Password no change Contact Information Admin Name Job Title Department Email Address Phone Ext After making a change, **Press the Submit button** to send the changes to Submit the MS-200 E SYSTEM



Maintenance - Logs



View a log of recent network activity

Maintenance - Logs

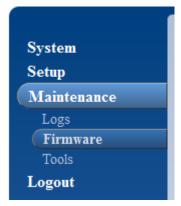
Recent Activity

```
1969-12-31 19:00:07 - Resetting Device Configuration (Reason: Reset Button)
2012-08-22 17:43:28 - System Startup as "MS-200-0082F18472B1" at 172.16.0.1
2012-08-22 17:44:05 - User Login as "Admin" from 172.16.0.167
2012-08-22 17:44:24 - Upload/Program System Firmware
2012-08-22 17:44:24 - System Shutdown (Reason: User requested firmware upda
2012-08-22 17:45:53 - System Startup as "MS-200-0082F18472B1" at 172.16.0.1
2012-08-22 17:46:18 - User Login as "Admin" from 172.16.0.167
2012-08-22 17:50:15 - System Startup as "MS-200-0082F18472B1" at 172.16.0.1
2012-08-22 17:51:11 - User Login as "Admin" from 172.16.0.112
2012-08-22 17:52:11 - Modified Device Configuration (Reason: User request)
2012-08-22 17:52:53 - Modified Device Configuration (Reason: User request)
2012-08-22 17:53:34 - Modified Device Configuration (Reason: User request)
2012-08-22 17:53:46 - Modified Device Configuration (Reason: User request)
2000-01-01 01:00:00 - Set System Time Failed (pool.ntp.org, attempts=8)
2000-01-01 01:00:00 - System Startup as "MS-200-0082F18472B1" at 192.168.1.
2000-01-01 01:01:02 - User Login as "Admin" from 192.168.1.150
2000-01-01 01:03:00 - Upload/Program System Firmware
2000-01-01 01:03:00 - System Shutdown (Reason: User requested firmware upds
2012-08-22 22:35:29 - System Startup as "MS-200-0082F18472B1" at 192.168.1.
2012-08-22 22:37:05 - User Login as "Admin" from 192.168.1.150
2012-08-22 22:43:55 - User Login as "Admin" from 192.168.1.104
2000-01-01 01:00:00 - Set System Time Failed (pool.ntp.org, attempts=8)
2000-01-01 01:00:00 - System Startup as "MS-200-0082F18472B1" at 172.16.0.7
2000-01-01 01:08:03 - User Login as "Admin" from 172.16.0.82
2000-01-01 01:00:00 - Set System Time Failed (pool.ntp.org, attempts=8)
2000-01-01 01:00:00 - System Startup as "MS-200-0082F18472B1" at 172.16.0.7
2000-01-01 01:00:50 - User Login as "Admin" from 172.16.0.82
2000-01-01 01:08:42 - Modified Device Configuration (Reason: User request)
2000-01-01 01:08:54 - Modified Device Configuration (Reason: User request)
2000-01-01 01:00:00 - Set System Time Failed (pool.ntp.org, attempts=8)
2000-01-01 01:00:00 - System Startup as "MS-200-0082F18472B1" at 172.16.0.7
```





Maintenance – Firmware



The Maintenance - Firmware screen allows you to see the version of firmware currently being run on the MS-200 as well as perform updates of that firmware.

Firmware updates require the MS-200 to be connected to the Internet and capable of passing data through Port 80.

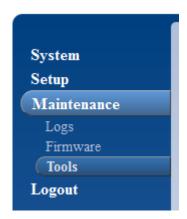


This screen also allows you to save your settings, re-load previously saved settings, and perform a reset of the MS-200.

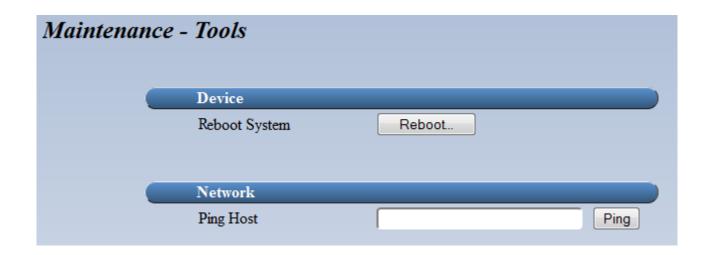




Maintenance - Tools



The Maintenance – Tools screen allows you to perform a reboot of the MS-200.









Telnet Interface Documentation



Accessing the Telnet Interface



- Activating Telnet in Windows
 - Telnet Client is not installed by default on Windows 7, Windows Server 2008 R2, Windows Vista, or Windows Server 2008. The procedures to install Telnet Client vary based on the operating system you are using:
 - Use this link to access this information on the Microsoft web site
 - http://technet.microsoft.com/enus/library/cc771275%28v=ws.10%29.aspx

▲ Install Telnet Client on Windows 7 or Windows Vista

On Windows 7, Windows Vista, you can use the Windows Features tool to install optional components.

■ To install Telnet Client on Windows 7 or Windows Vista

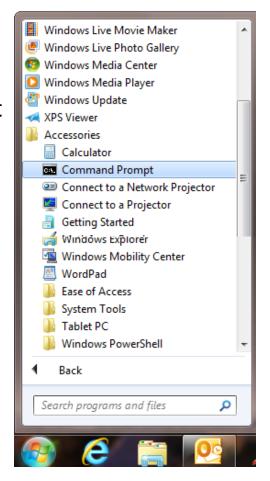
- 1. Click Start, and then click Control Panel.
- 2. On the Control Panel Home page, click Programs.
- In the Programs and Features section, click Turn Windows features on or off.
- If the User Account Control dialog box appears, confirm that the action it displays is what you want, and then click Continue.
- 5. In the Windows Features list, select Telnet Client, and then click OK.





Using Telnet

- Once the Telnet Client is activated, you can access it from the command prompt in the Windows Start menu
 - Windows Start Menu
 - All Programs
 - Accessories
 - » Command Prompt





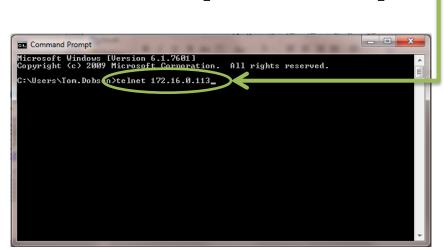


Command Prompt

```
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

C:\Users\Tom.Dobson>
```

- Once the command prompt has opened – Enter the following to access the MS-200
 - telnet [IP address]



- Press Enter





Command Prompt

- The Telnet interface is now open. A Login and password are required to access the MS-200
 - The Login is the User Name defined in the Admin screen of the MS-200 browser GUI Interface





Defaults:

User Name/Login: Admin

Password: audioe



Telnet Commands

- ALERT
 - Usage:
 - Alert
 - (Enter Alert command shell, type "done" to exit)
 - Alert list
 - (Lists all the alerts in the system)
 - Alert get [index]
 - (Displays the parameters of an alert)
 - Alert set [index] [event_type_id] [device_id] ["dev message"] ["email recip"] ["email message"]
 - (Updates parameters of an existing alert)
 - Alert add [event_type_id] [device_id] ["dev message"] ["email recip"] ["email message"]
 - (Adds a new alert to the system)
 - Alert del [index]
 - (Removes an existing alert)
- DATE
 - Usage:
 - Date
 - (Displays the system Date and Time, same as TIME)
- DEVICE
 - Usage:
 - Device
 - (Enter Device command shell, type "done" to exit)
 - Device list
 - (Lists all the devices in the system)
 - Device get [index]
 - (Displays the parameters of a device)
 - Device set [index] [name] [type] [host] [port]
 - (Updates parameters of an existing device)
 - Device add [name] [type] [host] [port]
 - (Adds a new device to the system)
 - Device del [index]
 - (Removes an existing device)



Telnet Commands

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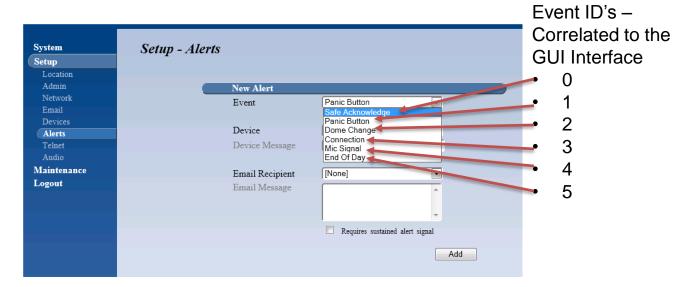
DOMECONTROL

- Usage:
 - DomeControl
 - (Enter DomeControl command shell, type "done" to exit)
 - DomeControl \$[CMD]:[1]:[2]
 - (Sends a command to the satellite/dome, as defined by the satellite dome hardware unit)
 - See the IR-Satellite Manual RS-232
 Command section for a list of commands
 - DomeControl SAFE_ACK
 - (Triggers a safe acknowledge signal on the satellite/dome)
- EXIT
 - Usage:
 - Exit
 - (Terminates the telnet command shell interface)



Telnet Commands

- EVENT
 - Usage:
 - Event [event_type_id]
 - (Triggers a system event)



To trigger an event manually from the Telnet Interface

- Log into the Telnet Interface
- From the main screen Type
 - Event 1 (to trigger a Panic button event)
 - Press Enter
 - To trigger a different type of event, simply change the number



Telnet Commands

- HELP
 - Usage:
 - Help
 - (Lists commands available through the telnet command shell)
 - Help [command]
 - (Displays some very basic usage information for [command])
- LOG
 - Usage:
 - Log [read]
 - (Lists entire contents of the system log)
 - · Log [add] [text]
 - (Adds a new line to the system log)
- PING
 - Usage:
 - Ping [host]
 - (Performs a network ping on a host/IP on the network/internet)
- RESTART
 - Usage:
 - Restart
 - (Restarts the MS-200 device)
 - Restart [milliseconds]
 - (Restarts the MS-200 device after the specified delay)



Telnet Commands

SYSCONFIG

- Usage:
 - SysConfig
 - (Enter SysConfig command shell, type "done" to exit)
 - SysConfig get all
 - (Lists all properties and values)
 - SysConfig get property.name
 - (Gets the value of a property)
 - SysConfig set property.name=value
 - (Sets the value of a property)
 - SysConfig commit
 - (Writes changes to flash memory)
 - SysConfig rollback
 - (Reverses uncommitted changes)
 - SysConfig reset
 - (Resets all property values to defaults)

TIME

- Usage:
 - Time
 - (Displays the system Date and Time, same as DATE)

